WHAT IS CLAIMED:

1. A communication receiver comprising:

an antenna for receiving an input signal from a transmitter which is moving relative to the receiver;

an A/D converter, connected to the antenna, for providing a sampled digital signal from the input signal; and

a controller for receiving and demodulating the sampled digital signal from the A/D converter, and the controller shifting the sampled digital signal to compensate for Doppler effect in the input signal prior to demodulation.

2. The receiver according to Claim 1, wherein the controller compensates for a Doppler increased frequency by shifting the sampled digital signal so as to skip a sample period every n samples.

3. The receiver according to Claim 2, wherein the input signal has a cycle of m samples, and n is equal to or greater than m.

4. The receiver according to Claim 1, wherein the controller compensates for a Doppler increased frequency by shifting the sampled digital signal forward one sample period every n samples.

5. The receiver according to Claim 1, wherein the controller compensates for a Doppler increased frequency by decreasing a cycle of m samples by one sample period every n samples.

6. The receiver according to Claim 1, wherein the controller compensates for a Doppler decreased frequency by shifting the sampled digital signal so as to add a sample period every n samples.

7. The receiver according to Claim 6, wherein the input signal has a cycle of m samples, and n is equal to or greater than m.

8. The receiver according to Claim 1, wherein the controller compensates for a Doppler decreased frequency by repeating a sample every n samples to shift the sampled digital signal.

9. The receiver according to Claim 1, wherein the controller compensates for a Doppler decreased frequency by increasing a cycle of m samples by one sample period every n samples.

10. The receiver according to Claim 1, wherein the controller shifts the sampled digital signal until a known transmission frequency of the transmitter has been modified to match the frequency of the input signal.

11. The receiver according to Claim 1, wherein the controller matches the phase of the sampled digital signal to the phase of the input signal.

12. The receiver according to Claim 11, wherein the controller includes a phase locked loop for matching the phases.

13. The receiver according to Claim 12, wherein the controller includes software for shifting and demodulating the sampled digital signal and the phase locked loop.

14. The receiver according to Claim 1, wherein the controller includes software for shifting and demodulating the sampled digital signal.

15. The receiver according to Claim 1, wherein the controller integrates the demodulated sampled digital signals using a sine-cosine table.

16. The receiver according to Claim 15, wherein the controller correlates the integrated digital signal to stored PN sequences.

17. The receiver according to Claim 1, wherein the controller identifies how many transmitters' transmission are in the input signal and shifts and demodulates the sampled data for each identified transmitter, in parallel.

18. The receiver according to Claim 17, wherein the controller is a multi-threaded processor.

19. The receiver according to Claim 1, wherein the input signal is sampled at least eight times per cycle of the input signal.

20. A method of compensating for a Doppler change of frequency in a communication receiver comprising:

converting a received signal into a sampled digital signal;

determining the Doppler change of frequency from a known transmission frequency;

shifting the sampled digital signal as a function of Doppler change of frequency; and

demodulating the shifted sampled digital signal.

21. The method according to Claim 20, wherein for a Doppler increased frequency, shifting the sampled digital signal so as to skip a sample period every n samples.

22. The method according to Claim 21, wherein the input signal has a cycle of m samples, and n is equal to or greater than m.

23. The method according to Claim 20, wherein for a Doppler increased frequency, shifting the sampled digital signal forward one sample period every n samples.

24. The method according to Claim 20, wherein for a Doppler increased frequency, decreasing a cycle of m samples by one sample period every n samples.

25. The method according to Claim 20, wherein for a Doppler decreased frequency, shifting the sampled digital signal so as to add a sample period every n samples.

26. The method according to Claim 25, wherein the input signal has a cycle of m samples, and n is equal to or greater than m.

27. The method according to Claim 20, wherein for a Doppler decreased frequency, repeating a sample every n samples to shift the sampled digital signal.

28. The method according to Claim 20, wherein for a Doppler decreased frequency, increasing a cycle of m samples by one sample period every n samples.

29. The method according to Claim 20, including identifying how many transmitters' transmission are in the input signal and shifting and demodulating the sampled data for each identified transmitter, in parallel.

30. The method according to Claim 29, wherein the method is performed on a multi-threaded processor.

31. The method according to Claim 1, wherein the input signal is sampled at least eight times per cycle of the input signal.